IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No.	:	10/544,180	Confirmation No.: 5006
Applicant	:	Mohnen et al.	
Filed	:	August 2, 2005	
Int. App. No.	:	PCT/US2004/003545	
Int. Filing Date	:	February 5, 2004	
Art Unit	:	1638	
Examiner	:	Cathy K. Worley	
For	:	NUCLEIC ACIDS ENCODING A GALACTURONOSYLTRANSFERASE (GALAT1) ENZYME FROM ARABIDOPSIS (as amended)	
Docket No.	:	14-03	
Customer No.	:	23713	

CERTIFICATE OF EFS-WEB FILING

I hereby certify that this correspondence is being deposited with the USPTO EFS-WEB system.

December 11, 2008 /donnamferber/

Date Donna M. Ferber

DECLARATION UNDER 37 C.F.R 1.132

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

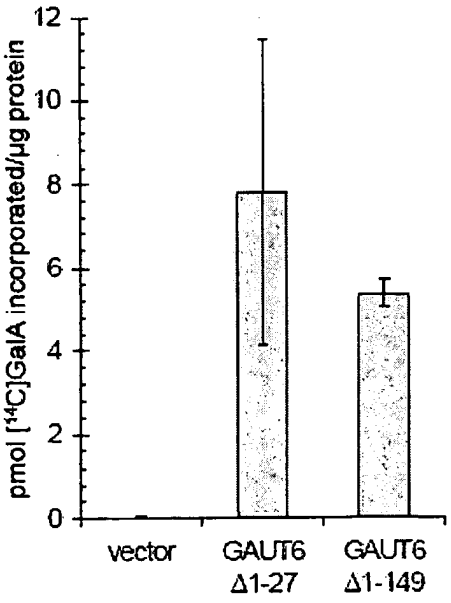
I, DEBRA MOHNEN, hereby declare as follows:

1. That I am a coinventor, together with Jason Dwight Sterling, Ron Lou Doong, Venkata Siva Kumar Kolli and Michael G. Hahn, of the above-identified patent application;

2. That I am a Professor in the Department of Biochemistry and Molecular Biology and an adjunct faculty member in the Department of Plant Biology and a member of the Plant Center at the University of Georgia; and the Plant Cell Wall Biosynthesis Activity Lead in the BioEnergy Science Center (BESC).

3. That I have worked in area of plant polysaccharide synthesis, structure, function and molecular biology in Arabidopsis, for over twenty years;

4. That I have determined that the protein corresponding to SEQ ID NO:8 of the above-identified application, which protein is now termed GAUT6, has galacturonosyl transferase activity in an enzymatic activity similar to that used to demonstrate that GALAT1, the protein corresponding to SEQ ID NO:2 of the above-identified application, has galacturonosyl transferase activity. The assay was generally described in the above-identified application at page 22, lines 5-19, and in references cited therein; The characterization of GAUT6 was done using nickel affinity column purified, His-tagged soluble truncated GAUT6 derivatives (N-terminal amino acids 1-27 deleted and N-terminal amino acids 1-149 deleted; expressed in *Escherichia coli*), with UDP-[^{14}C]-GalA and oligogalacturonic acid acceptors (degree of polymerization 7-24) for 3 hours at 30°C; HG-GalAt activity was measured. The data shown in the attached figure are T_0 subtracted average pmol [^{14}C]-GalA incorporated/µg protein ± standard error of duplicate reactions.



5. That I have concluded that the data provided show that the GAUT6 protein (SEQ ID NO:8) has homogalacturonan galacturonosyl transferase activity.

6. That all statements made herein of my knowledge are true and all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Debra Mohnen

12-11-05

Date